

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A thin film formation method, comprising:

forming a plurality of antenna elements, each of the antenna elements including a first linear conductor having a first end and a second end and a second linear conductor having a first end and a second end, the first end of the first linear conductor and the first end of the second linear conductor of each of said antenna elements being electrically connected to each other;

arranging a number of said antenna elements in a chamber so that the first and the second linear conductors are placed alternately in a plane in equal intervals, forming one or more array antennas;

connecting the second ends of each of the first linear conductors to a high-frequency power source;

grounding the second ends of each of the second linear conductors;

installing a plurality of substrates on both sides of and in parallel to said array antennas so as to have respective distances between the array antennas and the substrates substantially equal to the intervals; and

forming thin films on said substrates by generating plasma around the antenna element,

wherein the thin films, as deposited, have at least a microcrystalline structure.

Claim 2 (Canceled).

Claim 3 (Previously Presented): The thin film formation method as set forth in claim 1, further comprising: keeping a pressure in the chamber at 60Pa or less.

Claim 4 (Previously Presented): The thin film formation method as set forth in claim 1 or 3, further comprising:

putting said substrates in a reciprocal motion in a direction parallel to the array plane and perpendicular to the first and the second linear conductors.

Claim 5 (Withdrawn): A thin film formation apparatus, comprising:
a chamber equipped with an inlet port configured to introduce a source gas and an exhaust port for evacuation;
one or more array antennas placed in the chamber, each of the array antennas including a plurality of antenna elements, each of the antenna elements having a first and a second linear conductors, a first end of the first linear conductor and a first end of the said second linear conductor of said antenna elements being electrically connected to each other, the first and the second linear conductors placed alternately in a plane in equal intervals, the second ends of each of the first linear conductors connected to a high-frequency power source and the second ends of each of the second linear conductors being grounded; and
a plurality of substrate holders configured to support a plurality of substrates on both sides of and in parallel to said array antennas so as to have respective distances between the array antennas and the substrates substantially similar to the intervals.

Claim 6 (Withdrawn): The thin film formation apparatus as set forth in claim 5, further comprising:

dielectric bodies covering the first linear conductors.

Claim 7 (Currently Amended): A solar cell production method, comprising:

forming a plurality of antenna elements, each of the antenna elements including a first linear conductor having a first end and a second end and a second linear conductor having a first end and a second end, the first end of the first linear conductor and the first end of the second linear conductor of each of said antenna elements being electrically connected to each other;

arranging a number of said antenna elements in a chamber so that the first and the second linear conductors are placed alternately in a plane in equal intervals to form one or more array antennas;

connecting the second ends of each of the first linear conductors to a high-frequency power source;

grounding the second ends of each of the second linear conductors;

installing a plurality of substrates on both sides of and in parallel to said array antennas so as to have respective distances between the array antennas and the substrates substantially equal to the intervals; and

forming thin films on said substrates by generating plasma around the antenna element,

wherein the thin films, as deposited, have at least a microcrystalline structure.

Claim 8 (Canceled).

Claim 9 (Previously Presented): The solar cell production method as set forth in claim 7, further comprising: keeping a pressure in the chamber at 60Pa or less.

Claim 10 (Previously Presented): The solar cell production method as set forth in claim 7 or 9, further comprising:

putting said substrates in a reciprocal motion in a direction parallel to the array plane and perpendicular to the first and the second linear conductors.

Claim 11 (Withdrawn): A solar cell production apparatus, comprising:
a chamber equipped with an inlet port to introduce a source gas and an exhaust port for evacuation;

one or more array antennas placed in the chamber, each of the said array antennas includes a plurality of antenna elements, each of the antenna elements having a first and a second linear conductors, a first end of the first linear conductor and a first end of the second linear conductor of said antenna elements being electrically connected to each other, the first and the second linear conductors placed alternately in a plane in equal intervals, the second ends of each of the first linear conductors connected to a high-frequency power source and the second ends of each of the second linear conductors being grounded; and

a plurality of substrate holders configured to support a plurality of substrates on both sides of and in parallel to said above array antennas so as to have respective distances between the array antennas and the substrates substantially similar to the intervals.

Claim 12 (Withdrawn): The solar cell production apparatus as set forth in claim 11, further comprising:

dielectric bodies covering the first linear conductors.

Claim 13 (Withdrawn): A solar cell, comprising:

silicon thin films including microcrystalline silicon deposited on a surface of substrates, the thin films formed by:

forming a plurality of antenna elements, a first end of a first linear conductor and a first end of a second linear conductor of each of said antenna elements being electrically connected to each other;

arranging a number of said antenna elements in a chamber so that the first and the second linear conductors are placed alternately in a plane in equal intervals to form one or more array antennas;

connecting the second ends of each of the first linear conductors to a high-frequency power source;

grounding the second ends of each of the second linear conductors;

installing a plurality of substrates on both sides of and in parallel to said array antennas so as to have respective distances between the array antennas and the substrates substantially equal to the intervals; and

forming the thin films on the substrates.

Claim 14 (Withdrawn): The solar cell as set forth in claim 13, wherein, the thin films are deposited by maintaining a pressure in the chamber at 60Pa or less.

Claim 15 (Withdrawn): The solar cell as set forth in claim 13 or 14, wherein
the silicon thin films are formed by putting said substrates in a reciprocal motion in a
direction parallel to the array plane and perpendicular to the said and the second linear
conductors.